



## King's Research Portal

DOI:

[10.1136/jramc-2015-000518](https://doi.org/10.1136/jramc-2015-000518)

*Document Version*

Peer reviewed version

[Link to publication record in King's Research Portal](#)

*Citation for published version (APA):*

Stevellink, S., & Fear, N. T. (2016). Psychosocial impact of visual impairment and coping strategies in female ex-Service personnel. *Journal of the Royal Army Medical Corps*, 162(2), 129-133. <https://doi.org/10.1136/jramc-2015-000518>

### **Citing this paper**

Please note that where the full-text provided on King's Research Portal is the Author Accepted Manuscript or Post-Print version this may differ from the final Published version. If citing, it is advised that you check and use the publisher's definitive version for pagination, volume/issue, and date of publication details. And where the final published version is provided on the Research Portal, if citing you are again advised to check the publisher's website for any subsequent corrections.

### **General rights**

Copyright and moral rights for the publications made accessible in the Research Portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognize and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the Research Portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the Research Portal

### **Take down policy**

If you believe that this document breaches copyright please contact [librarypure@kcl.ac.uk](mailto:librarypure@kcl.ac.uk) providing details, and we will remove access to the work immediately and investigate your claim.

# Psychosocial impact of visual impairment and coping strategies in female ex-Service personnel

## Abstract

**Purpose:** To examine how vision loss affects the psychosocial well-being of female ex-Service personnel and how they cope with their visual impairment.

**Method:** A cross-sectional study was conducted consisting of two study phases. During phase 1, a questionnaire was undertaken via the telephone with nine female ex-Service personnel (all under 55 years of age) using clinical screening measures to identify the probable presence of the following mental health disorders: depression (PHQ-9), anxiety (GAD-7), Post-Traumatic Stress Disorder (PTSD) (PCL-C) and alcohol misuse (AUDIT). In phase 2, eight of the participants were interviewed face to face regarding the impact that being visually impaired had had on their daily lives.

**Results:** Approximately one in ten women screened positive for probable depression, probable PTSD or alcohol misuse; one in five fulfilled the criteria for probable anxiety disorder. Participants struggled to adjust to the loss of vision and its impact on their lives. They reported low self-esteem, feeling down and social withdrawal. As time went by, the women were able to apply various coping strategies such as having a positive attitude, relearning skills, and integrating low vision aids in their daily routine. However, some coping strategies, such as alcohol misuse and lack of help-seeking when needed, hindered participants' success in adjusting to their visual impairment.

**Conclusions:** Sustaining a visual impairment negatively affects psychosocial well-being in female ex-Service personnel. Over time, participants learnt to cope with the challenges and limitations associated with being visually impaired.

## Introduction

Loss of vision can be experienced as a serious traumatic event<sup>1</sup>, particularly when it is associated with increased dependence and loss of ability to engage in valued activities (e.g. driving and reading). The consequences of becoming visually impaired on various life domains such as employment, mobility and interpersonal relations, are unique for each individual. The impact depends on various factors including the degree of vision loss, presence of comorbidities, use of coping strategies and the availability of social support<sup>2-4</sup>. Coping with a visual impairment is complex and dynamic; it involves adaptations in the emotional, physical and social domains of life<sup>5</sup>. People experience a range of emotions such as anger, frustration and denial whilst trying to adjust to this life changing event<sup>4,5</sup>. In addition, visual impairment may seriously hamper the mental well-being of the person affected<sup>2,5-9</sup>.

There is minimal evidence available on the consequences of vision loss in young adult populations as the major burden of vision loss is to be found in older generations<sup>10</sup>. Nonetheless, Nyman and colleagues (2011) reviewed studies examining the psychosocial effects of visual impairment among working-age adults<sup>8</sup>. They concluded that levels of depression were not consistently elevated among visually impaired working-age adults. However, overall poorer mental well-being and quality of life was found in visually impaired people in comparison to fully sighted people within the same age range<sup>8</sup>. A review of the effects of a physical impairment on the mental well-being of Service personnel indicated varying levels of mental health disorders such as Post-Traumatic Stress Disorder (PTSD), depression, anxiety and substance abuse across study populations; it was concluded that mental health problems were more frequently reported in impaired populations compared to healthy military and civilian populations<sup>11</sup>. The review focused predominantly on male Service personnel with a physical impairment and it was unable to identify any studies specifically examining the mental health of ex-Service personnel with a visual impairment. Since approximately one in ten Service personnel are female, it is important to investigate how a visual impairment may affect the psychosocial well-being of female personnel<sup>12</sup>.

For the current cross-sectional study, female ex-Service personnel who were members of the charity organisation Blind Veterans UK<sup>1</sup> were selected as part of a larger study (n=83, which included nine women; response rate 80.0%)<sup>13</sup>, thereby providing insight into how vision loss affects the psychosocial

---

<sup>1</sup> Blind Veterans UK is a charity organisation, formerly known as St Dunstan's, which provides support and care for (ex-) service personnel who have a visual impairment in both eyes, regardless of the cause.  
[www.blindveterans.org.uk](http://www.blindveterans.org.uk)

well-being of female ex-Service personnel under the age of 55 years. Qualitative data were combined with scores on validated mental health screening measures, thus providing a detailed description of how younger ex-Service women experience and deal with visual impairment.

DRAFT

## **Methods**

### ***Sample and procedures***

All female members of the charity organisation Blind Veterans UK who were below 55 years of age were invited to participate in the study (n=9). Membership of Blind Veterans UK is offered based on the following sight loss criteria 1) for (ex-) Service personnel with central scotomas and who retain peripheral vision; a Snellen visual acuity of 6/60 or less in the better eye; and 2) those who retain peripheral vision, they are eligible if they have constricted visual fields, irrespective of their Snellen acuity. Their remaining field in the better, or both eyes, should be less than 5° from fixation.

The study consisted of two phases. During phase 1, a questionnaire was undertaken with participants via the telephone, whereby their mental health was examined. Participants who completed this telephone questionnaire were invited to take part in phase 2 of the study (n=8). The second phase consisted of face to face interviews in the participant's home during which the participant was asked to reflect on the effects of becoming visually impaired had on their daily life and how they coped with this event.

The data were collected between March 2013 and May 2013. In order to thank participants, they received £15 for the telephone questionnaire and £20 for the face to face interview. Informed consent was obtained verbally at the start of both phases, after detailing the purpose and nature of the study. All telephone and face to face interviews were recorded. Ethical approval was given by the Social Care Research Ethics Committee (12-IEC08-0032).

### ***Materials***

#### ***Telephone questionnaire (phase 1)***

Phase 1 asked participants questions related to socio-demographics, Service history and general health. Further clinical screening measures for probable mental health disorders were administered:

- The Patient Health Questionnaire (PHQ): a 9-item depression screening tool used to assess mood over the past two weeks<sup>14</sup>. A score of 15 or more was used as an indication of probable depression<sup>14</sup>.
- The Generalised Anxiety Disorder Assessment (GAD-7): this 7-item tool was used to identify anxiety disorders where a score of 10 or more represented a cut-off point for probable generalised anxiety disorder<sup>15</sup>.

- The Post Traumatic Stress Disorder Checklist – Civilian (PCL-C): a 17-item tool used to identify symptoms of PTSD<sup>16,17</sup>. A cut-off score of 50 or more was used to define probable PTSD<sup>16,17</sup>.
- The Alcohol Use Disorders Identification Test (AUDIT): a 10-item measure used to identify alcohol misuse. A score of 8 or above was classified as indicative of alcohol misuse<sup>18</sup>.

#### *Face to face interviews (phase 2)*

An 11-item semi-structured interview schedule was used during phase 2. Participants were asked to reflect on the consequences of being visual impaired on various life domains, how they dealt with their impairment and any difficulties they experienced.

#### **Analysis**

##### *Telephone questionnaire (phase 1)*

The data of the telephone questionnaires (phase 1) were analysed using descriptive statistics. Numbers and percentages were presented for categorical data and medians and interquartile range for continuous data. Stata (v. 11.0) was used for the data analysis.

##### *Face to face interviews (phase 2)*

The qualitative data gathered during the face to face interviews (phase 2) were transcribed verbatim. The two researchers who conducted the interviews re-listened to the recordings and read the transcripts repeatedly. Five different transcripts were coded independently by both researchers after they met and discussed an initial coding framework. This framework was revised and finalised after both researchers coded another three different transcripts. Subsequently, one researcher coded all the transcripts using the final coding framework. The data were analysed thematically in which patterns were identified in the data and these were grouped into themes<sup>19</sup>. Nvivo (v.10) was used to organise the qualitative data. Several themes were identified and two are described in the current paper namely impact on life and coping strategies. To ensure the anonymity of the participants, pseudonyms were assigned.

## Results

All eligible women were included in the telephone questionnaire (phase 1 of the study) (n=9) (response rate 100.0%) of which eight also participated in phase 2 of the study.

The median age of the women was 51 years. One in three participants was currently in a relationship (table 1). The median time since becoming visually impaired was 9.8 years. More than half of the ex-Service women had served between the five and 12 years in the Armed Forces. None of the women had a combat-related visual impairment. The majority had a systemic visual impairment (e.g. due to diabetes, Multiple Sclerosis) or a genetic visual impairment (e.g. retinal dystrophies, macular dystrophies, optic nerve conditions) (data not shown). Out of all the women, three had a guide dog and 7 used a cane. All of the women had received induction training at Blind Veterans UK whereby they got taught how to perform activities of daily living, use of low vision aids and get around in and outside the house. Some women also mentioned to have had a home visit from Social Services or received some help from other charities, but in general this support was very limited.

Table 1: Socio-demographic and health characteristics of female ex-service personnel (n=9) (phase 1).

	<b>Women (n=9)</b> <b>n (%)</b>
<b>Age (years)</b>	Median: 51 IQR: 50-52
<b>Marital status</b>	
In a relationship	3 (33)
Not in a relationship	6 (67)
<b>Children</b>	
Yes	4 (44)
No	5 (56)
<b>Employed</b>	
Yes	4 (44)
No	5 (56)
<b>Housing</b>	
Private	5 (56)
Rented	4 (44)
<b>Time since becoming visually impaired (years)</b>	Median: 9.8 IQR: 6.6-12.8
<b>Currently on medication</b>	
Yes	7 (78)
No	2 (22)
<b>Self-rated health</b>	
Excellent/very good/good	6 (67)
Fair/poor	3 (33)

N: number; IQR: interquartile range



First the results of the mental health screening measures will be described, followed by a detailed description of the two main themes identified in the qualitative data, namely impact of becoming visually impaired on daily life and coping strategies.

### *Mental health (phase 1)*

Please refer to table 2 for the outcomes of the various mental health screening measures used. One in five participants indicated that they have had thoughts that they would be better off dead or hurting themselves in some way for several days or more in the last two weeks.

Table 2: Prevalence of probable mental health disorders among female ex-Service personnel (phase 1).

<b>Probable mental health problem</b> (screening measure and cut-off point)	<b>Probable case (n %)</b>
Probable depression (PHQ $\geq 15$ )	1 (11.1)
Probable anxiety (GAD $\geq 10$ )	2 (22.2)
Probable PTSD (PCL-C $\geq 50$ )	1 (11.1)
Probable alcohol misuse (AUDIT $\geq 8$ )	1 (11.1)

### *Impact of visual impairment on mental well-being (phase 2)*

Becoming visually impaired was accompanied by a wide range of emotions including irritation, frustration, anger, shock, and feeling low. Initially, younger ex-Service women felt unable to live their life without vision as illustrated by Anna:

*“It had a big impact. You felt like your life was over at the beginning and you were totally useless (...). (...) You didn’t know how you were going to start picking your feet up. (...). It’s like a bereavement you know at the time and you had to just sort of readjust.”*

Female ex-Service personnel reported alcohol misuse, non-fatal suicide attempts and suicidal thoughts, social withdrawal and depressive feelings. This corresponds with the findings on the mental health screening measures. Further, their visual impairment adversely affected their sense of identity, as they had not only lost their vision, but also in some cases, their job, independence, and social activities. The loss of independence and consequently increased reliance on other people was one of the main concerns; this was enforced by being no longer able to drive, a reluctance to go out alone or to use public transport, and not wanting to be a burden on others. This impeded the confidence of female ex-Service personnel. They questioned their self-worth, as they felt that they were no longer contributing to society or able to fulfil expected roles.

*Christine: “(...) I couldn’t be a mum the way I wanted to be a mum because I couldn’t take the kids out, I couldn’t do what I wanted to and needed to do. I couldn’t be a wife because I was so wrapped up in everything that was going on for me; I was just so selfish and horrible. I couldn’t do my job and that was the biggest loss I think.”*

### *Coping strategies (phase 2)*

Whilst female ex-Service personnel struggled after becoming visually impaired, over time they adjusted to their new situation. Adjusting to visual impairment was facilitated by social support from family and friends; relearning skills (e.g. cooking, getting dressed); integrating the use of low vision aids; seeing a counsellor; and having a positive mental attitude and trying to ‘crack on’. Another strategy used by participants was termed “goal setting” whereby, for example, they had started a training course and this helped them to find a new lease on life.

*Angela: “To start with it was just basic. How to be able to cook again, how to be able to make a drink which I could do with the liquid level indicator, how do I do the housework? How do I be the*

*person I was and still capable of doing a lot of what I could do? So it was little steps. Now I'm running and (...) what's the next goal?"*

Besides factors that facilitated adjustment, female ex-Service personnel reported experiences or strategies that hindered adjustment. They were reluctant to ask others for help and struggled by themselves (termed as 'coping at a cost' by the researchers). Others experienced an unsupportive social network, started misusing substances or withdrew socially.

*Sara: "In the very beginning days to be quite honest I used to drink myself stupid because my mum wasn't listening to what I was trying to say to her. My dad wasn't listening, my sister thought that I was just being melodramatic and actually there's nothing absolutely anything wrong with me (...)."*

Adjusting to visual impairment was hampered by reactions from the public; a bus driver confiscated the disabled person's buss pass from Sara because she 'did not look blind' (despite using a symbol cane). This had a serious effect on her confidence and she did not travel by public transport for a period of time. Other experiences included people feeling patronised as illustrated by Caroline:

*"Oh look at that blind dog taking that lady for a walk and the dog's not blind, I'm blind! And they would've stopped and have a conversation with the dog before... I was like invisible. "*

*"(...) the girl or man whoever was on the checkout would ask my daughter for the money. Although it was me who had the money (...)."*

Personnel were at different stages of coming to terms with what happened to them. On one hand, personnel had been able to rebuild their lives, were happy and felt that they were 'back on track'. On the other hand, some were still searching for a meaning in life and had the feeling they were progressing slowly in adjusting to their visual impairment.

*Mary: "It's all worked out you know far better than you know I think when you're young (...) and think you were going to lose your sight, you'd think it would be the worst thing ever, but it's not (...). You know obviously as time goes on, once you've, it's happened and you've got your head around it all and life is going on."*

Overall as time went by participants occasionally felt frustrated, angry and depressed but felt they had 'the tools to cope'.

Christine: *“I know my coping strategies now are to get away if things are really closing in, and being able to express my concerns or how I feel is probably the best thing that’s changed. Because I wouldn’t ask for help before (...). Whereas now I’m very vocal and able to say if something isn’t right (...).”*

## **Discussion**

The results indicated that the mental well-being of ex-Service personnel who had sustained a visual impairment was adversely affected. Several participants screened positive for probable mental health disorders including PTSD, depression, anxiety and alcohol misuse. Directly after the loss of vision, participants were unsure about how and if they wanted to carry on with their life. However, as time passed by, female ex-Service personnel adjusted to this new situation and applied various emotion- and problem-focussed coping strategies. These strategies enabled them to rebuild their lives thereby responding positively to the limitations and challenges followed as a consequence of becoming visually impaired.

A study of 74 (ex-) Service men with a visual impairment demonstrates that approximately one in three male (ex-) Service personnel screened positive for probable depression, probable anxiety or probable PTSD, a slightly higher percentage compared to the ex-Service women<sup>13</sup>. A possible explanation entails the cause of visual impairment; none of the females included in the study had a combat-related visual impairment, compared to 20 out of the 74 Service men. However, subgroup analysis showed that Service men with a combat-related visual impairment reported less mental health problems than those with a non-combat-related visual impairment<sup>13</sup>. Another explanation may include the older age of non-combat-related visually impaired personnel as they may have had more exposure to other possible traumatic life events that hampered their mental well-being. The small sample size of the study might also be an issue. Further, Iversen and colleagues (2009) selected a subsample of UK Armed Force personnel; 720 men and 101 women. Approximately 5% of the men screened positive for probable PTSD compared to 2% of the women<sup>20</sup>. Neurotic disorders, including probable depression or anxiety were also more common among men than women, 14.1% and 8.4% respectively. One in five men screened positive for alcohol misuse compared to one in twenty women<sup>20</sup>. These findings suggest that UK Service men may report poorer mental health outcomes than Service women. In comparison to the findings from the current study, ex-Service women with a visual impairment report similar prevalence levels for

depression, lower levels of probable PTSD and higher levels of anxiety and alcohol misuse compared to non-impaired UK ex-Service women.

The results from the Adult Psychiatric Morbidity Survey (APMS) found that approximately 3% of women screened positive for current PTSD or depression, 5% for generalised anxiety disorder and 16% for misusing alcohol<sup>21</sup>. Compared to these findings, visually impaired female ex-Service personnel had a higher prevalence of probable mental health problems, except for alcohol misuse. Piquart and Pfeiffer (2011) conducted a meta-analysis summarizing studies that looked into the psychological well-being of visually impaired elderly people<sup>22</sup>. From all the individuals included in the different studies that were summarized in the review, 62% were women. Unfortunately, no stratified analyses were presented to identify potential differences in well-being by gender. Overall, the authors concluded that the more severe the visual impairment, the worse the impact on the psychological well-being of the person affected<sup>22</sup>. In general, however, the differences in psychological well-being between those with and without a visual impairment were minimal<sup>22</sup>.

Besides quantitative studies, there are various qualitative studies that examined the consequences of vision loss, specifically how it affects the mental well-being of older people and how they adjust over time. Seventeen qualitative studies published over the last three decades (1980 – 2010) were reviewed and Nyman and colleagues (2012) concluded that sustaining a visual impairment resulted in major changes in the life of the person affected<sup>1</sup>. This was commonly reflected in an increased level of dependence and no longer being able to undertake hobbies. Further, mental well-being was hampered and this showed in various ways including feeling low, having an impaired self-esteem, being afraid for further loss of vision and being less active socially<sup>1</sup>. Their findings correspond with the experiences described by female ex-Service personnel in the current study. Our results indicated that adjustment to this new situation was hindered by, for example, reactions from the public as well 'coping at a cost' by being hesitant to ask for support if needed. These strategies were also highlighted in the review<sup>1</sup>. Positive coping strategies found in the review and reflected in our data included acceptance of vision loss, having a positive mind-set and receiving support from family, friends and peers<sup>1</sup>.

### *Strengths and limitations*

This study has several limitations. First, the sample is small with nine women having completed the telephone interview and eight completing the face to face interview. However, these were all the members of Blind Veterans UK who were eligible for the study. Second, how these findings can be

generalised to other groups is unclear. Third, several sensitive questions were asked and participants may have given socially desirable answers<sup>23</sup>. Fourth, a financial incentive was given to participants as a token for their time. A strength of the study was the use of reliable and validated screening measures for mental health problems. The combination of the data gathered from the screening measures with the qualitative interviews provided detailed insight in how sustaining a visual impairment affects ex-Service women, and especially how it affects their mental well-being.

### *Conclusions and implications*

Sustaining a visual impairment negatively affects the psychosocial well-being of female ex-Service personnel. Participants applied a variety of positive and negative coping strategies. Health professionals should be aware that becoming visually impaired may have mental health implications on top of the functional impairments that will ensue.

### **KEY MESSAGES**

- Becoming visually impaired hampers the psychosocial well-being of the person affected.
- As time passes by ex-Service women develop various strategies to cope with their loss of vision.
- Research should be directed into how health care professionals can provide the best support to people with a visual impairment, thereby facilitating adjustment.

## **Acknowledgements**

We would like to thank Professor Christopher Dandeker, Department of War Studies, King's College London, for his useful comments on an earlier draft of the paper and Estelle Malcolm for her support during the data collection of this study and the development of the data analysis strategy.

## **Declaration of interest**

S.A.M.S. and N.T.F. are based at King's College London, which receives funding from the UK Ministry of Defence (MoD). S.A.M.S. received funding from Blind Veterans UK to carry out the Blind Veterans UK study. The authors were not directed in any way by the MoD or the charity in relation to this publication.

## References

- 1 Nyman SR, Dibb B, Victor CR, Gosney MA. Emotional well-being and adjustment to vision loss in later life: a meta-synthesis of qualitative studies. *Disabil Rehabil* 2012;34(12):971-81.
- 2 Brown RL, Barrett AE. Visual impairment and quality of life among older adults: an examination of explanations for the relationship. *J Gerontol B Psychol Sci Soc Sci* 2011;66(3):364-73.
- 3 Reinhardt JP, Boerner K, Horowitz A. Personal and social resources and adaptation to chronic vision impairment over time. *Aging Ment Health* 2009;13(3):367-75.
- 4 Percival J, Hanson J. 'I don't want to live for the day any more': visually impaired people's access to support, housing and independence. *British Journal of Visual Impairment* 2007;25:51-67.
- 5 Hodge S, Barr W, Bowen L, Leeven M, Knox P. Exploring the role of an emotional support and counselling service for people with visual impairments. *British Journal of Visual Impairment* 2013;31(1):5-19.
- 6 Horowitz A. The prevalence and consequences of vision impairment in later life. *Topics in Geriatric Rehabilitation* 2004;20(3):185-195.
- 7 Mitchell J, Bradley C. Quality of life in age-related macular degeneration: a review of the literature. *Health Qual Life Outcomes* 2006;4:97.
- 8 Nyman SR, Gosney MA, Victor CR. Psychosocial impact of visual impairment in working-age adults. *Br J Ophthalmol* 2010;94(11):1427-31.
- 9 Zayfert C, Dums AR, Ferguson RJ, et al. Health functioning impairments associated with posttraumatic stress disorder, anxiety disorders, and depression. *Journal of Nervous and Mental Disease* 2002;190(4):233-240.
- 10 Pascolini D, Mariotti SP. Global estimates of visual impairment: 2010. *Br J Ophthalmol* 2012;96(5):614-8.
- 11 Stevelink SA, Malcolm EM, Mason C, et al. The prevalence of mental health disorders in (ex-)military personnel with a physical impairment: a systematic review. *Occup Environ Med* 2014.
- 12 Ministry of Defence. *UK Armed Forces Annual Personnel Report*. 2014.
- 13 Stevelink SA, Malcolm EM, Gill PC, Fear NT. The mental health of UK ex-servicemen with a combat-related or a non-combat-related visual impairment: does the cause of visual impairment matter? *Br J Ophthalmol* 2015.
- 14 Kroenke K, Spitzer RL, Williams JB. The PHQ-9: validity of a brief depression severity measure. *J Gen Intern Med* 2001;16(9):606-13.
- 15 Spitzer RL, Kroenke K, Williams JB, Lowe B. A brief measure for assessing generalized anxiety disorder: the GAD-7. *Arch Intern Med* 2006;166(10):1092-7.
- 16 Weathers FW, Litz B, Herman D, Huska JA, Keane TM. *The PTSD Checklist (PCL): reliability, validity and diagnostic utility*. 1993; San Antonio, TX.
- 17 Weathers FW, Huska JA, Keane TM. *The PTSD checklist - civilian version (PCL-C)*. Boston: National Centre for PTSD; 1994.
- 18 Babor TF, Higgins-Biddle JC, Saunders JB, et al. *The alcohol use disorders identification test; guidelines for use in primary care*. Geneva: World Health Organization; 2001.
- 19 Ritchie J, Lewis J, McNaughton Nicholls C, et al. *Qualitative Research Practice: a guide for social science students & researchers*. SAGE; 2014
- 20 Iversen AC, van Staden L, Hughes JH, et al. The prevalence of common mental disorders and PTSD in the UK military: using data from a clinical interview-based study. *BMC Psychiatry* 2009;9:68.
- 21 NHS Information Centre for Health and Social Care. Adult psychiatric morbidity in England, 2007; results of a household survey 2009.
- 22 Pinquart M, Pfeiffer JP. Psychological well-being in visually impaired and unimpaired individuals: A meta-analysis. *British Journal of Visual Impairment* 2011;29(1):27-45.



DRAFT